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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,644	02/12/2004	Hendrik Antony Johannes Neerhof	081468-0307829	1756
909	7590	02/21/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			NGUYEN, HUNG	
P.O. BOX 10500			ART UNIT	PAPER NUMBER
MCLEAN, VA 22102			2851	

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8/1

Office Action Summary	Application No. 10/776,644	Applicant(s) NEERHOF, HENDRIK ANTONY JOHANNES	
	Examiner Hung Henry V. Nguyen	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 2 and 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/12/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-4, 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al (U.S.Pat. 4,737,824).

With respect to claims 1 and 12, Sakai et al disclose a lithographic apparatus (see col.2, lines 60-61) comprising substantially all of the structures set forth in the instant claim such as: at least one support structure (2) adapted to claim a object (1) thereon and the object clamped on the support structure defining a compartment (2b) and a fluid supply structure (7-9) in communication with the compartment, the fluid supply structure being constructed and arranged to supply a fluid to the compartment, wherein the fluid supply structure includes a meter (5) arranged to measure a change in at least one of flow velocity of the fluid and pressure of the fluid as a function of time, in order to detect whether or not the object is correctly clamped on the support structure.

As to claim 3, Sakai teaches the meter/sensor (5) is a pressure sensor (see col.3, line 35) connected to a control unit (12) arranged to receive a value representative of the pressure of the fluid and arranged to determine a change in the pressure of the fluid as a function of time and to

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compare the change with a predetermined value of the change (see col.2, lines 34 thru col.4, line 65).

As to claim 4, Sakai does not expressly disclose a first support structure for supporting a patterning device, a radiation system and a projection system, as claimed. However, these elements are inherent elements of an exposure apparatus and must be present for the exposure apparatus to function as intended.

As to claims 9-11, the claimed method, the claimed computer system and the claimed computer-readable medium are seen to be inherent teachings in existence of the above described apparatus.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al (U.S.Pat. 4,737,824).

With respect to claim 5, Sakai lacks to show that the fluid is a gas comprising argon. However, a use of inert gas such as argon, nitrogen, helium in a lithographic apparatus is well known per se. It would have been obvious to a skilled artisan to supply argon to the compartment of Sakai for at least the purpose of increasing of the light transmittance or the generation of ozone in the exposure apparatus.

Allowable Subject Matter

5. Claims 2, 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: claims 2, 6-8 have been found to be allowable over the prior art of record since applicant's arguments with respect to prior art rejections are deemed persuasive (for example, see remarks filed December 8, 2005, page 5, lines 1-10; page 6, lines 7-19).

Response to Arguments

6. Applicant's arguments filed December 8, 2005 have been carefully reviewed but with respect to claims 1, 3-5, 9-12, they are not found to be persuasive. The applicant is reminded that the claimed subject matter to examination will be given their broadest reasonable interpretation consistent with the specification, and limitations appearing in the specification are not be read into the claims. In re Yamamoto, 740 F. 2d 1569, 1571, 222 USPO 934, 936 (Fed.Cir. 1984).

With this in mind, the discussion herein will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitation that is not in the claims or any argument that is irrelevant to or does not relate to any specific claimed language will not be warranted.

With respect to claims 1, 3-4, and 9-12, in response to applicant's arguments that Sakai et al does not disclose all of the features of claims that calls for "a meter arranged to measure a

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change in at least one of flow velocity of said fluid and pressure of said fluid as a function of time, in order to detect whether or not said object is correctly clamped on said structure” (for example see claim 1). Applicant argues that Sakai et al merely measures the pressure of the pocket (2b) *at a given moment in time* and does not “measure a change in ...pressure of said fluid as a function of time ...”, as recited in claims of the present invention. the Examiner respectfully disagrees with the applicant. Sakai meets the limitations as claimed since the pressure sensor (5) of Sakai is provided to measure the pressure in the chamber (2b) at different time periods whereby any difference in pressure (a change in pressure) over time of the chamber (2b) is detected so that the pressure in the chamber (2b) is maintained at constant pressure (see col.4, lines 35-38). As a result, Sakai discloses that the wafer is correctly held on the support structure and any unwanted concave or convex warp of the wafer is prevented. Therefore, in the broadest sense, the pressure sensor (5) can be regarded as “a meter arranged to measure a change in the pressure of the fluid as a function of time, in order to detect whether or not said object to correctly clamped on said support structure” as claimed.

With respect to claims 2-3, 6-8, as stated above, these claims would be allowed if rewritten to include all of the limitations of the base claim and any intervening claims, thereby mooting the arguments.

With respect to claim 5, applicant states that claim 5 adds the feature of the fluid being “a gas comprising argon” and then the applicant argues that “the claimed compartment to which the argon is supplied is defined by a support structure adapted to clamp an object thereon and the object clamped on the support structure. There is no need to increase the light transmittance or the generation of ozone in the compartment”; the Examiner respectfully disagrees with the

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applicant. As stated in the prosecution history of this case, a use of inert gas (such as: nitrogen, argon, helium, etc...) in lithographic apparatus is well known per se, therefore, even though, "there is no need to increase the light transmittance or the generation of ozone in the compartment", as argued, it is the Examiner's position that it would have been obvious to a skilled artisan to select argon to supply to the compartment of Sakai as a matter of obvious design choice. The Examiner fails to find applicant's argument convincing that the use of argon as supplied gas to the compartment (2b) of Sakai would be unobvious to a skilled artisan in the art. Accordingly, the rejection of claim 5 is maintained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hung Henry V Nguyen
Primary Examiner
Art Unit 2851

hvn
2/16/06